UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,126	04/08/2004	Jari Syrjarinne	915-007.086	8251

4955 7590 09/06/2007

WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP
BRADFORD GREEN, BUILDING 5
755 MAIN STREET, P O BOX 224
MONROE, CT 06468

EXAMINER	
NGUYEN, DAVID Q	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
09/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/821,126	SYRJARINNE, JARI	
	Examiner	Art Unit	
	David Q. Nguyen	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20 and 30-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20 and 30-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-20 and 30-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Chansarkar (WO 03/034090 A2).

Regarding claims 1,30-34, Chansarkar discloses a method, a mobile communication equipment, a system, a computer program embodied in a computer readable medium and a module in communication with receiver of a mobile communication equipment for calculating a position of a mobile communications equipment, by receiving physical communication channels within the mobile communications equipment, receiving first signal codes within said physical communication channels (see par. 0006 and pars. 0017-0035), measuring a signal phase of said first signal code within said mobile communications equipment (see par. 0006 and pars. 0017-0035), measuring a carrier signal within said physical communications channels within said mobile communications equipment (see par. 0006 and pars. 0017-0035), reducing a noise level of said measured signal phase by using said carrier signal (see par. 0006 and pars. 0017-0035), and calculating said position of said mobile communications equipment using at least said noise level reduced signal phase (see par. 0006 and pars. 0017-0035).

Regarding claim 2, Chansarkar also discloses wherein said signal phase is a signal code phase (see par. 0006 and pars. 0017-0035); wherein said noise level of said measured signal code phase is reduced by filtering with said carrier signal (see par. 0006 and pars. 0017-0035); wherein said carrier signal is obtained from a measured frequency shift (see par. 0006 and pars. 0017-0035); wherein said measured frequency shift is a pseudodoppler frequency (see par. 0006 and pars. 0017-0035); wherein said carrier signal is obtained from an accumulated carrier phase measurement (see par. 0006 and pars. 0017-0035); wherein said filtering is done by carrier smoothing (see par. 0006 and pars. 0017-0035); wherein a threshold value for estimating said signal code phase is defined (see par. 0006 and pars. 0017-0035); wherein the phase of said first signal code phase is tracked and said carrier signal is obtained from a carrier and/or phase tracking loop (see par. 0006 and pars. 0017-0035); wherein said carrier signal is obtained from matched filter outputs within said mobile communications equipment (see par. 0006 and pars. 0017-0035); wherein said physical communication channels are transmitted from ground based base stations (see par. 0006 and pars. 0017-0035); wherein said signal phase is transmitted from said mobile communications equipment to a base station (see par. 0006 and pars. 0017-0035); wherein said measured carrier signal is transmitted from said mobile communications equipment to said base station (see par. 0006 and pars. 0017-0035); wherein said position is calculated within an underlying communications network (see par. 0006 and pars. 0017-0035); wherein said position is calculated using a time of arrival calculation principle (see par. 0006 and pars. 0017-0035); wherein said position is calculated using a time difference of arrival calculation principle (see par. 0006 and pars. 0017-0035); wherein at least position information of said base station are transmitted from said base station to said mobile communications equipment (see par. 0006

and pars. 0017-0035); wherein said signal code is a pilot signal code (see par. 0006 and pars. 0017-0035); wherein said base station and said mobile equipment utilize a code division multiple access communication protocol (see par. 0006 and pars. 0017-0035); wherein said position is calculated using a hybrid position calculation (see par. 0006 and pars. 0017-0035).

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Asher et al. (US 2003/0201934 A1) teach weak signal and anti-jamming global positioning system receiver and method using full correlation grid.

Syrjarinne et al. (US 2003/0109264 A1) teach method, apparatus and system for synchrononizing a cellular communication system to GPS time.

Syrjarinne et al. (US 6865380 B2) teaches method apparatus and system for frequency stabilization using cellular signal bursts.

Akopian et al. (US 6,771,215 B2) teach determination of the transmission time of a signal part in a positioning system.

Akopian et al. (US 6,459,407 B1) teach cross-correlation system for time recovery in network assisted GPS positioning.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q. Nguyen whose telephone number is 571-272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOSEPH H. FEILD can be reached on (571)272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DQN

David Q Nguyen
Examiner
Art Unit 2617